

APPLICATION FOR SUPPLEMENTAL PERMIT  
TO MODIFY SITE OPERATION  
"COVER BORROW AREA"

SCA-MILAM LANDFILL  
ST. CLAIR COUNTY, EAST ST. LOUIS, ILLINOIS

RECEIVED  
MAY 03 1982  
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STATE OF ILLINOIS

US EPA RECORDS CENTER REGION 5



INTRODUCTION

The SCA-Milam Landfill located in Section 5, T.2N., R.9W. in St. Clair County, Illinois, no longer has sufficient on-site soils for use as daily, intermediate and final cover, and must contract with outside sources for cover material. The landfill currently receives cover from the La Mear and Hart properties under IEPA Supplemental Permit Numbers 1981-35 and 1981-93, respectively. Those properties, however, have limited lifetimes and new sources are continually being sought.

Request is made for Supplemental Permit to obtain cover material from portions of land located in the Northeast Quarter of Section 11, T.3N., R.9W in Madison County, Illinois. The property is owned by Quality Sand, Inc. and will be referred to herein as the Quality Sand Property. The property is located approximately 6.5 miles northeast of the SCA-Milam Landfill. Access between the two sites is by way of State Route 111 and Interstate 55.

Attached are a Legal Description for the property, that portion of the U.S.G.S. Monks Mound Quadrangle map which shows the borrow site and test results for selected soil samples.

DEVELOPMENT AND OPERATION

The borrow site has been and is being developed by Quality Sand, Inc. Their operation involves the excavation and sorting of sand for sale. The southern portion of the property has been excavated in part and is partly used for operating facilities. Approximately 40 acres in the northeastern portion of the property, and a 100-foot strip along the north side of the west half of the property remains un-

"SCA-MILAM LANDFILL/COVER BORROW AREA"

developed. Clay overlies the sand in those areas, ranging from two feet of thickness at the west end of the property to over 15 feet at the east end of the property. The clay must be removed before the sand can be excavated. SCA-Milam will purchase the clay on a tonnage basis for use at the landfill as daily, intermediate and final cover material.

The clay will be excavated and removed by Quality Sand, Inc. using their on-site excavating equipment. They will also haul the material to the Milam landfill in tandem trucks. The trucks will unload the clay near the active fill face, and a dozer will push it onto the fill face and compact it for daily cover. The material will be stockpiled as necessary, within 100 yards of the active fill face where it is to be used for intermediate or final cover. Most daily cover stockpiling will be on top of the previously filled area, but sometimes, such as when a new lift is beginning, stockpiles will be in front of the active fill face.

Operations pertaining to movement of cover material from the borrow site to the landfill are planned for five days a week, weather permitting, during daylight hours, or from 8:00 a.m. to 4:30 p.m. Currently, daily cover requirements average 600 cubic yards, and any excess is stockpiled. Operations at the landfill will continue as before and will not be affected by excavation and hauling from off-site.

VOLUME AND BORROW SITE LIFE

The materials to be excavated for use as cover are estimated to consist of approximately 832,000 cubic yards. If the borrow area was the sole source and used only for daily cover, it would have a lifetime of approximately 4.5 years. However, the lifetime may be somewhat less, as much of the material may be used for ongoing final cover needs.

SOILS

Previous test excavations by Quality Sand, Inc. at the approximate locations marked A, B, and C on the attached map showed clay thicknesses to be 2, 7 and 15-plus feet, respectively. Bag samples 1, 2, and 3, were obtained on March 15th, 1982 from the

"SCA-MILAM LANDFILL/COVER BORROW AREA"

corresponding numbered locations on the attached map.

As the attached test analyses show, the material has clay contents between 55 and 65 percent, and typical maximum densities of approximately 90 pcf. The clay material is virtually the same as materials from the Hart and La Mear properties and is the clay which is prevalent throughout the American Bottoms. Typical permeability values for numerous samples from various sources show the clay to have permeabilities on the order of low  $10^{-8}$  to high  $10^{-9}$  cm/sec.

Only the clay materials which overlie the sand will be sold to SCA-Milam for use as daily, intermediate, and final cover.

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BORROW SITE

DEVELOPED AREA

UNDEVELOPED AREA

Pontoon Beach

Stallings

Radio Tower (KMOK)

Four Corners

Moellenbrock

Edelhardt Lake

Trailer Park

TERMINAL

Fostair Field

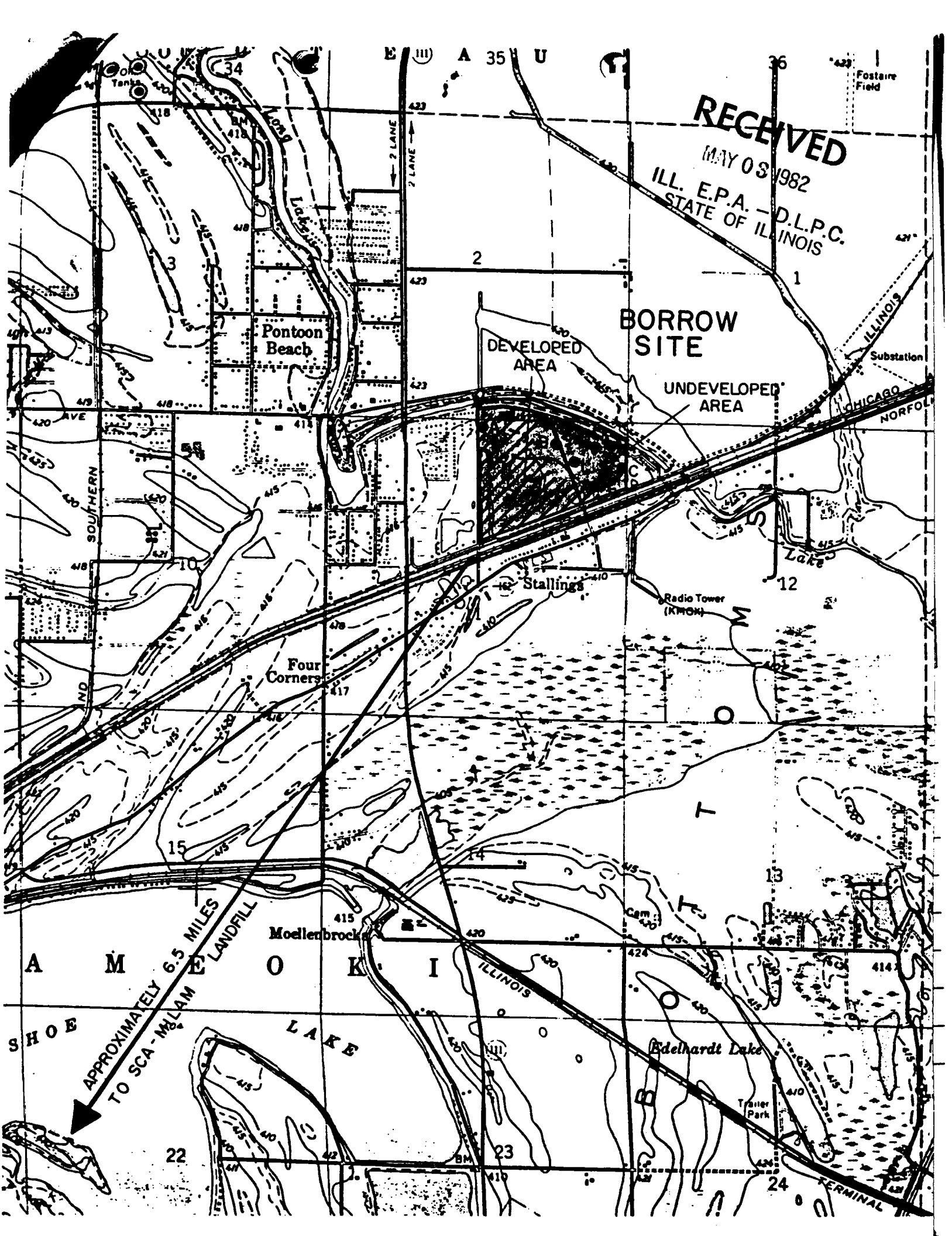
Substation

CHICAGO NORFOLK

APPROXIMATELY 6.5 MILES  
TO SCA-MILAM E LANDFILL

SHOE

LAKE



- Foundation Investigations
- Soil & Rock Engineering
- Groundwater Hydrology
- Subsurface Exploration
- Construction Observation

**MATHES**  
CONSULTANTS, INC.

ENGINEERING CONSULTANTS IN THE APPLIED EARTH SCIENCES

P.O. BOX 330, COLUMBIA, ILLINOIS 62236  
618-281-7173 • 314-241-1785

# LETTER OF TRANSMITTAL

TO Environmental Engineering, Inc.  
1320 S. 5th Street  
Springfield, IL 62703

Date 3-26-82 Job No. 800940

Project \_\_\_\_\_

Att. Ms. Roberta Jennings

1. ( ) FOR REVIEW & COMMENT
2. ( ) FOR APPROVAL
3. (x) AS REQUESTED
4. ( ) FOR YOUR USE
5. ( ) \_\_\_\_\_

We are sending you herewith (x) / Under separate cover ( )

NO. of COPIES	DESCRIPTION
1 ea.	Moisture Density Test Results Bag Samples 1, 2 & 3
1 ea.	Grain Size Curves Bag Samples 1, 2 & 3

Remarks:

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Copies forwarded to:


*[Signature]*